- (New) A replication defective hepadnavirus particle, wherein a region of the pre-S and S-gene of the hepadnavirus genome have been deleted and replaced by a heterologous gene such that the sequences for RC and RII that are essential for producing reverse transcriptase are retained.
- 2. (New) The replication defective hepadnavirus particle of claim 1, wherein the heterologous gene encodes one of a cytokine or a chemokine.
- 3. (New) The replication defective hepadnavirus particle of claim 2, wherein the cytokine is selected from the group consisting of TNF α , IFN β , IL-18, IFN- γ and IL-12.
- 4. (New) A pharmaceutical composition comprising:
 - a replication defective hepadnavirus with a region of its pre-Sgenes deleted and replaced with a heterologous gene such that
 the sequences of the RC r RII that are essential for producing
 reverse transcriptase are retained, and
 - a pharmaceutically acceptable carrier.
- 5. (New) The pharmaceutical composition comprising:
 - a replication defective hepadnavirus with a region of its pre-S-gene deleted and replaced with a heterologous gene that

the sequences of the RC r RII that are essential for producing reverse transcriptase are retained, and

- a helper virus
- 6. (New) A method of producing replication defective hepadnavirus particles at a titer suitable for infecting hepatocytes comprising:
 - co-transfecting hepatocyte cells of a hepatoma cell line with:
 - (i) replicating defective hepadnavirus constructs, wherein a region of one of a pre-S or an S-gene of the hepadnavirus DNA has been replaced with a gene encoding a heterologous gene while retaining one of an RC or RII signal, such that the expression of the gene encoding a cytokine is regulated by regulatory sequences of the [pre-S] S-gene; and
 - (ii) a helper construct for transcomplementing lacking viral gene products;
 - culturing the hepatocytes until infectious viral particles are produced; and
 - recovering the infectious particles.
- 7. (New) The method of claim 39, wherein the cell line is stably transfected with the helper construct and serves as a packaging cell line.

- 8. (New) The method of claim 7, wherein the replication defective hepadnavirus particles are human hepatitis B virus particles
- 9. (New) The method of claim 7, wherein the heterologous gene replaces sequences of the S-gene.
- 10. (New) The method of claim 7, wherein the heterologous gene replaces a region of the S-gene under control of the endogenous S-promoter.
- 11. (New) The method of claim 7, wherein the heterologous gene is inserted such that one of an authentic AUG codon of the S-gene or nucleotides encoding further amino acids of the S-protein are fused in frame to the 5'end of the heterologous gene.
- 12. (New) The method of claim 7, wherein the heterologous gene encodes a modulating agent.
- 13. (New) The method of claim 7, wherein the heterologous gene encoded for a cytokine.

- 14. (New) The method of claim 13, wherein the cytokine is selected from the group consisting of IFNα, IFNβ, IFNγ, TNFα, IL-12 and IL-18.
- 15. (New) A method for producing replication defective recombinant hepadnavirus particles capable of expressing a heterologous gene in hepatocytes comprising:
 - replacing an S-gene in a hepatitis B virus genome with the heterologous gene such that the expression of the heterologous gene is regulated by an S-promoter;
 - producing a replication deficient hepadnavirus by means of a helper plasmid transcomplementing viral gene products such that the lacking viral gene products are present;
 - infecting hepatocytes with the recombinant hepadnavirus,
 whereby the heterologous gene is delivered into the hepatocyte
 and expressed in the hepatocyte.
- 16. (New) A recombinant HBV genome, wherein an S-gene in the HBV genome is deleted and replaced by a heterologous gene and wherein the sequences for RC and RII that are essential for reverse transcription are retained.

- 17. (New) The recombinant HBV genome of claim 16, wherein the heterologeous gene is under the control of the endogenous S promoter.
- 18. (New) The recombinant HBV genome of claim 16, wherein the heterologous gene encodes an immunomodulator.
- 19. (New) The recombinant HBV genome of claim 16, wherein the heterologous gene encodes one of a cytokine or a chemokine.
- 20. (New) The recombinant HBV genome of claim 17, wherein the immuno modulator is selected from the group consisting of IFN α , IFN β , IFN γ , TNF α , IL-18 or IL-12.